OIPE

RAW SEQUENCE LISTING   DATE: 07/05/2001
PATENT APPLICATION: US/09/747,007   TIME: 11:18:49

Input Set : **A:\PTO.txt**
Output Set: **N:\CRF3\07052001\I747007.raw**

ENTERED

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    3 <110> APPLICANT: Ouellet, Therese
    4         Miki, Brian
    5         Foster, Elizabeth
    6         Martin-Heller, Teresa
    7         Tian, Lining
    8         Brown, Daniel C
    9         Zhang, Peijun
   10        ·Hattori, Jiro
   11         Malik, Kamal
   12         Wu, Keqiang
   14 <120> TITLE OF INVENTION: Translational Regulatory Elements
   16 <130> FILE REFERENCE: 08-885707us
C--> 18 <140> CURRENT APPLICATION NUMBER: US/09/747,007
C--> 19 <141> CURRENT FILING DATE: 2001-06-21
   21 <160> NUMBER OF SEQ ID NOS: 21
   23 <170> SOFTWARE: PatentIn Ver. 2.1
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   26 <211> LENGTH: 2224
   27 <212> TYPE: DNA
   28 <213> ORGANISM: Nicotiana tabacum
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   33 gtcaaaaggg aacttcaccc tcctagttct ttatttccaa catacatggg gagtaatgct 180
   34 aaatttacat agaagaataa taaaatgaac tgtaactaat gatgtactgt tccaaagaga 240
   35 tgaggacgtc aacatattta ttccttcagc ccttttcaga ataataccat aagtagaaga 300
   36 aatggcacat aaaatgaagt cctcggcaag tcaaatgtaa atctgaaccc acccagctaa 360
   37 cccagtgaac tcaactttcc tggatagatc agcactcctt catgacattg catgccttct 420
   38 ctttaaagag ccgcttgatc tctgaaaacc aaatgaatct ccacagagag atttcgagct 480
   39 ccatgagacg ccttttggtt cttgatttac taaacctata aaaatgaaag gaagtaggac 540
   40 aactgcattt tgccgcttaa gatgcttcgg cgctttgtga attttaagtc atgagaaagt 600
   41 acaatgttgg aatctcacat tagaacaatg tatttgtaat aacctaggaa agcaaagcta 660
   42 gaagggaggt gcagctaaat cttcttctac cttgttatcc ttgcatttct tgaggaggag 720
   43 gaactgtcct cgcaggtgca aaatctgcag tcgcccaaaa ggatattcag aagtatatta 780
   44 caacatgttt aatggttaac caagtgaaag atcaaaatag tcattagaac aaaatgcgtg 840
   45 ctcagagcgt atctactagt tcatcaaccc agtacacatc tctgaatttc atctcttgcc 900
   46 gttgaactaa gtcaattggt caaagacgca taacatgaga gacactcata aaacggctga 960
   47 ataacatgca gaagacgtca tgcgccttag gtctcattat gcatgagatt attagttata 1020
   48 tgctccttca gtttgactag aaatgaaaaa tcagttaagc ctgtaacgaa atgataacct 1080
   49 gcttcaagaa gattagacta tttttcataa aatatgcagt gccgtgaaat agatacttaa 1140
   50 tcttaggcag gaaaaatctt ctattgggcc ataataagaa ctaccaatta gaaggaggt 1200
   51 agaaagctcc gatactgtta tgaaggccat tctaagtgct gatgtgaatt tcccaataca 1260
   52 aaatgacaac aaaaacaaaa gcctcaatcc taagctagtt ggggtcgcta tataaatcct 1320
   53 cgacatccat ttaactccac ttggactcct ttctttccaa tattttaata ttgttagatt 1380
   54 aatcataaaa ttgcttagct ttctactggc acttaaccta ctgcaaccct cctcttctgg 1440
   56 gattccaaca caaacaacta agaggaattt gaaaaaaga aagcaaatgt gagaagagac 1500
   57 aaaatgtaca atgataccte ttcttgcagc aaaggaggca ggttctctgc tgagacaagg 1560
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58 ttctctattt cctgcaagac cttcgtatct tttattcgag accatgtatg tggaggtaac 1620
59 gccagcaata gtgctgtcag cacatcgttg cttgcagggg atcttctgca agcatctcta 1680
60 tttcctgaag gtctaacctc gaagatttaa gatttaatta cgtttataat tacaaaattg 1740
61 attctagtat ctttaattta atgcttatac attattaatt aatttagtac tttcaatttg 1800
62 ttttcagaaa ttattttact atttttttata aaataaaagg gagaaaatgg ctatttaaat 1860
63 actagcctat tttatttcaa ttttagctta aaatcagccc caattagccc caatttcaaa 1920
64 ttcaaatggt ccagcccaat tcctaaataa cccacccta acccgcccgg tttccccttt 1980
65 tgatccaggc cgttgatcat tttgatcaac gcccagaatt tccccttttc cttttttaat 2040
66 tcccaaacac ccctaactct atcccatttc tcaccaaccg ccacatatga atcctcttat 2100
67 ctctcaaact ctctcgaacc ttcccctaac cctagcagcc tctcatcatc ctcacctcaa 2160
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69 ctta                                                               2224
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83 catcatcctc acctcaaaac ccaccggaat acatggcttc tcaagccgtg gaaaccttat 120
84 actcacctcc ctttgctctt acagtactcg gccgtcgacc gcggtacccg ggtggtcagt 180
85 cccttatg                                                       188
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89 <211> LENGTH: 129
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91 <213> ORGANISM: Artificial Sequence
93 <220> FEATURE:
94 <223> OTHER INFORMATION: Description of Artificial Sequence: delta N with
95       Kozak sequence
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98 agatctatcc tcttatctct caaactctct cgaaccttcc cctaaccta gcagcctctc 60
99 atcatcctca cctcaaaacc caccggccac catggcctct agaggacccc gggtggtcag 120
100 tcccttatg                                                    129
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104 <211> LENGTH: 119
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106 <213> ORGANISM: Artificial Sequence
108 <220> FEATURE:
109 <223> OTHER INFORMATION: Description of Artificial Sequence: deltaN without
111       Kozak sequence
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119 <211> LENGTH: 23
120 <212> TYPE: DNA
121 <213> ORGANISM: Artificial Sequence
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132 <212> TYPE: DNA
133 <213> ORGANISM: Artificial Sequence
135 <220> FEATURE:
136 <223> OTHER INFORMATION: Description of Artificial Sequence:Linker 2
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142 <210> SEQ ID NO: 7
143 <211> LENGTH: 18
144 <212> TYPE: DNA
145 <213> ORGANISM: Artificial Sequence
147 <220> FEATURE:
148 <223> OTHER INFORMATION: Description of Artificial Sequence: Linker 3
150 <400> SEQUENCE: 7
151 ttcccctaac cctagcag                                          18
154 <210> SEQ ID NO: 8
155 <211> LENGTH: 24
156 <212> TYPE: DNA
157 <213> ORGANISM: Artificial Sequence
159 <220> FEATURE:
160 <223> OTHER INFORMATION: Description of Artificial Sequence: Linker 4
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163 atcatcctca cctcaaaacc cacc                                   24
166 <210> SEQ ID NO: 9
167 <211> LENGTH: 24
168 <212> TYPE: DNA
169 <213> ORGANISM: Artificial Sequence
171 <220> FEATURE:
172 <223> OTHER INFORMATION: Description of Artificial Sequence: Linker 5
174 <400> SEQUENCE: 9
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179 <211> LENGTH: 602
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181 <213> ORGANISM: Nicotiana tabacum
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184 <223> OTHER INFORMATION: RENT 1
186 <220> FEATURE:
187 <223> OTHER INFORMATION: where n is A, T, G or C
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190 aattgtaagc gggataacaa tttcacacag gaaacagcta tgaccatgat tacgccaagc 60
191 ttttaatacg actcactata gggaaagctt ataattacaa aattgattct agtattttta 120
192 atttaatatt tttacattat taattaattt agaagtttta attttttttc agaaatcatt 180
193 ttactatttt tataaaaaca aaagggaaaa gtggttattt aaatactagc cctatttcat 240
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      194 ttcaattata gcctaaaatc agccccaatt aaccccaatt ccaaattcaa acgggccagc 300
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      196 gatccaggct gttgatcatt ttgatcaacg gccagaattt cccctttcct ttttaattcc 420
      197 caaacacccc ccaaccttat cccgtttctc accaaccgcc agatctatcc tcttatctct 480
      198 caaactctct cgaaccttcc cctaacccta gcagcctctc atcatcctca cctcaaaacc 540
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      200 aa                                                                602
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      205 <212> TYPE: DNA
      206 <213> ORGANISM: Nicotiana tabacum
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      209 <223> OTHER INFORMATION: RENT 2
      211 <400> SEQUENCE: 11
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      213 ttacgccaag ctctaatacg actcactata gggaaagctt ataattacaa aattgattct 120
      214 agtattttta atttaatatt tatacattat taattaactt agtactttca attcgttttc 180
      215 aaaaattatt ttactatttt ttgtaaaata aaagggagaa aatggctatt taaatactag 240
      216 ccctatttta tttcaatttt agcctaaaat cagcccccaa ttaaccccaa tttcaaattc 300
      217 aaatgggaca gcccaattcc taaaataacc cgcccctaac cctcttatcc aacccacccg 360
      218 atttcccctt ttgatccagg ttgttgatca ttttgatcaa cgaccagaat ttccccccttc 420
      219 ctgtttttaa ttcccaaaca ccccccaacc ctatcccatt tctcaccaac cgccagatct 480
      221 atcctcttat ctctcaaact ctctcgaacc ttcccctaac cctagcagcc tctcatcatc 540
      222 ctcacctcaa aacccaccgg ccaccatggc ctctagagga tccccgggtg gtcagtccct 600
      223 tatgtgcgtc                                                        610
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      227 <211> LENGTH: 507
      228 <212> TYPE: DNA
      229 <213> ORGANISM: Nicotiana tabacum
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      232 <223> OTHER INFORMATION: where n is A, T, G or C
      234 <220> FEATURE:
      235 <223> OTHER INFORMATION: RENT 3
      237 <400> SEQUENCE: 12
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      239 ttgttttcag aaattatttt actatttttt ataaaataaa agggagaaaa tggctatttta 120
      240 aataccagcc ctatttattt tcaattttaa cctaaaatca gccccagtta gccccaaacg 180
      241 gcccatccca attcctaaaa taactcgccc ctaacccgct tatccaaccc gcccggttcc 240
      242 cctttgatc caggccgttg atcattttga tcaacgacca gaatttcccc tttcctttttt 300
      243 taattcccaa acaccgccaa acctatccca tttctcacca accgccagat ctatcctctt 360
      244 atctctcaaa ctctctcgaa ccttccccta accctagcag cctctcatca tcctcacctc 420
W--> 245 aaaacccacc ggccaccatg gcctctagag gatccccggg tggtcagtcc cttatgtnac 480
W--> 246 gncctaaatg nccgncctgn nnnnnnc                                      507
      249 <210> SEQ ID NO: 13
      250 <211> LENGTH: 599
      251 <212> TYPE: DNA
      252 <213> ORGANISM: Nicotiana tabacum
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      255 <223> OTHER INFORMATION: RENT 5
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       260 atttaatatt tatacattat taattaattt agtactttca atttgttttc agaaatcatt 180
       261 ttactatggt ttataaaata aaagggagaa aatggctatt taaatactag ccctatttta 240
       262 tttcaatttt agcctaaaat cagccccaat taacccctat ttcaaattca aacgggctag 300
       263 cccagttcct aaaataaccc tcccctaacc cgcttatcca acccgccctg tttccccttt 360
       264 tgatccaggc cgttgatcat tttgatcaac gaccaaaatt tcccctttcc ttttttaatt 420
       265 cccaaacacc cccaacccta tcccatttct caccaaccgc cagatctatc ctcttatctc 480
       266 tcaaactctc tcgaaccttc ccctaacccт agcagcctct catcatcctc acctcaaaac 540
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       271 <211> LENGTH: 616
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       273 <213> ORGANISM: Nicotiana tabacum
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       285 attacaaaat tgattatagt acttttaatt taatatttat acattattaa ttaatttagc 180
       286 actttcaatt tattttcaga aaccatttta ctatttttta taaataaaa gggacaaaat 240
       287 ggctatttaa ataccaacac tattttattt caattttagc ctaaaatcaa acccaattaa 300
       288 ccccaaacgg gccagcccaa ttcctaaaac aacccgcccc taacccgctt atccaacccg 360
       289 cccgatttcc tcttttgatc caggccgttg atcattttga tcaacggcca gaatttcccc 420
       290 tttccttttt tcattcccaa acacccccaa acctatccca tttctcacca accgccagat 480
       291 ctatcctctt atctctcaaa ctctctcgaa ccttcccta accctagcag cctctcatca 540
       292 tcctcacctc aaaacccacc ggccaccatg gcctctagag gatccccggg tggtcagtcc 600
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       299 <213> ORGANISM: Artificial Sequence
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       304 <400> SEQUENCE: 15
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       309 <211> LENGTH: 24
       310 <212> TYPE: DNA
       311 <213> ORGANISM: Artificial Sequence
       313 <220> FEATURE:
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       316 <400> SEQUENCE: 16
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       320 <210> SEQ ID NO: 17
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VERIFICATION SUMMARY
PATENT APPLICATION: US/09/747,007

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Input Set : A:\PTO.txt
Output Set: N:\CRF3\07052001\I747007.raw

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L:18  M:270 C: Current Application Number differs, Replaced Application Number
L:19  M:271 C: Current Filing Date differs, Replaced Current Filing Date
L:199 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:10
L:199 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:10
L:199 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10
L:245 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:245 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:245 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:246 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:12
L:246 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:12
L:246 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12
L:259 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:13
L:259 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:13
L:259 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13
L:293 M:258 W: Mandatory Feature missing, <221> not found for SEQ ID#:14
L:293 M:258 W: Mandatory Feature missing, <222> not found for SEQ ID#:14
L:293 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
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